German Federal Institute for Risk Assessment

Interview

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BfR-President Professor Dr. Dr. Andreas Hensel talks about health risks in food and in our kitchens at home in an interview with the Neue Berliner Redaktionsgesellschaft (the newspapers Südwest Presse, Badische Neueste Nachrichten, Märkische Oderzeitung and Lausitzer Rundschau).

Source: Daniel Guggemos: “Das Warnen ist für viele ein Geschäftsmodell” (“Issuing warnings is a business model for many”).
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“Issuing warnings is a business model for many”

Andreas Hensel. He is the guardian of our food: Germany’s chief risk analyst has a low opinion of scaremongering. Constant and mostly unsubstantiated warnings about poison are mostly misleading, as was the case with the controversial pesticide glyphosate. More dangerous than many substances: unhygienic kitchens. By Dominik Guggemos.

How safe is our food? This question has occupied Andreas Hensel every day for the last 20 years. He is President of the German Federal Institute for Risk Assessment (BfR), which makes him Germany’s chief food risk analyst. The institute is independent and provides scientific advice to the Federal Government on issues regarding food and product safety as well as on chemicals and consumer health protection. Hensel has invited us to his workplace at the Institute in the Berlin district of Alt-Marienfelde. The agreed 45 minutes turn into 75. Hensel has a lot to say – and wants to clear up some myths about contaminated food and the threat of chemicals in our food.

Consumer organisations such as Foodwatch and Ökotest are repeatedly sounding the alarm. This ingredient is carcinogenic, that substance contains pesticide residues, and consumption is therefore toxic or harmful. However, your Institute has only issued one warning in 20 years – twelve years ago. How does that fit together?

That warning was desperately needed. During the 2011 EHEC crisis, 54 people died and over 4,000 fell seriously ill. When we identified contaminated fenugreek seeds as the cause of the

bacterial infections, it was clear that they had to be taken off the market immediately! There was immediate danger. But apart from that, our task is not to manage risks, but to assess them scientifically. Everyone can read about how we work on our homepage.

How safe is our food?

Overall, food in Germany is safer than ever before. The threshold values and maximum residue levels are rarely exceeded. If a substance, for example a plant protection agent, is detected, it doesn't necessarily mean that there is a health risk.

Who checks the people doing the checks?

First of all, I must emphasise that we were established by law as an independent institution. This includes dealing with the unknown and with scientific uncertainty. Many people follow our work with an expert critical eye – the public, and of course the scientific community. There are many mechanisms for checks by experts. Even more so, when our recommendations are transformed into policy – these management decisions take into account other factors besides the scientific assessment.

Consumer organisations issue warnings much more often than you do. Don't they understand all this?

I don't think that it's about a lack of understanding. But for some non-governmental organisations, issuing warnings is part of their business model. If you want to protect people from something, you have to say from what. The industry is not entirely innocent when it comes to some consumers' fear – and that's the breeding ground for this alarmism. However, it is scientifically undisputed: In the past, it was significantly more dangerous to consume food.

The dose makes the poison – have enough people internalised that?

There are things that are difficult for most people to comprehend. On the one hand, there is the personal risk assessment of what is actually really dangerous: for example, people who smoke or regularly drink beer and wine run higher health risks than those who consume pesticide residues in food. This is because tobacco and alcohol are classified as carcinogenic, with other risks becoming less important. And, of course, it's always crucial how much of a potentially hazardous substance a person ingests: yes, the dose makes the poison. But that's not all, because substances also interact with each other or are broken down in the body in different ways. This can be explained particularly well using coffee as an example.

Germany's favourite drink.

When you analyse coffee, you find that there are also carcinogenic substances in it. But studies show that coffee drinkers do not have a higher cancer rate than those who don't drink it.

Even if coffee isn't responsible: the number of cancer cases is continuously rising. Doesn't this show that our food is more dangerous than we think?

Counterquestion: would you rather live in the country with the highest or lowest cancer rate? The correct answer is without any doubt: where the cancer rate is highest. Because that means that life expectancy is high. The probability of developing cancer increases with age.

What are the threshold values for ingredients based on?

They are based on values that are considered safe for the entire population – including vulnerable groups such as the elderly, children, and pregnant women. That does not mean that everything above these limits is toxic. Moreover, exceeding a limit value does not necessarily constitute a health risk. Because this is again a question of exposure, in other words, the extent to which I come into contact with a substance.

And how do you measure that?

For example, by recreating the food that over 90% of the population eats. We bought over 60,000 products for this and then tested the cooked dishes for residues.

How do other countries do it?

We are one of the largest risk assessment authorities in the world. There is a huge international market for food. More than half of what we eat comes from other countries. This means that food safety today is no longer a national issue. And our cooperation with other countries helps our citizens in the end. For example, if we investigate a plant protection product and we don't expect any adverse health effects from its use, we share this knowledge with scientists and authorities around the world. If we have made a mistake, they will let us know within a few minutes.

If you take the World Health Organization (WHO) seriously, then consumers are basically surrounded by "possibly carcinogenic" ingredients in everyday life. These classifications coming from an institution that enjoys a high level of legitimacy thanks to the United Nations – that doesn't necessarily make your work easier, does it?

These classifications aren't coming from the WHO itself, but from a single WHO agency, the International Agency for Research on Cancer (IARC). This agency was founded because people said: if everyone in the world is getting cancer, there must be an underlying mechanism. If the IARC determines in a study that mice got cancer because of a certain ingredient, that can be enough to list that substance as "possibly carcinogenic", regardless of how relevant or irrelevant the study result may be outside the lab and regardless of whether the result could be reproduced in quality-controlled standard tests.

Is that justifiable?

Well, the agency does it with the best intentions. However, a hazard must also be described. For risk assessment, it then depends – once again – on quantity and exposure. In other words: if you never go swimming, you won't be eaten by a shark.

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Hardly any other substance causes as much fear among the population as the widely used pesticide glyphosate – even though the European Food and Chemical Safety Authority has not identified any risk after evaluating thousands of studies. Does this exasperate risk analysts?

It's actually quite simple: the moment a plant protection product shows a carcinogenic effect, it would no longer be a plant protection product – it would be taken off the market immediately. The risk assessment from all relevant assessment authorities worldwide is very clear: glyphosate has no carcinogenic potential. There are now more than 2,400 studies that are relevant for regulation on this question, which involved testing on more than 50,000 animals. But, of course, this herbicidal substance is toxic to its target organisms – that's what it was developed for.

Glyphosate is not used in organic farming.

Of course, you can farm without it, but even organic farmers have to protect their crops from harmful organisms, which includes the use of plant protection products. Those are also assessed and approved.

You say: when we talk about food safety, the biggest risk is in the kitchen. You're not only a risk analyst, but also a qualified hygiene expert. What does your kitchen look like?

Completely normal. To be honest, my wife is stricter than I am in this respect. But what we do take seriously is having different boards, certain ingredients are only cut on a certain coloured board to prevent transfer. We wash our hands before and after preparing food, and we clean the sink thoroughly with hot water. It's actually the dirtiest thing there is in the kitchen. Even dirtier than the fridge! That's all.

You have been Germany's top risk analyst for 20 years now; in the land of "German Angst". That must give you a lot of grey hairs, right?

At the time, the idea of making the voice of science independent was so important to me that I gave up my university tenure and took on this challenge – not knowing what to expect, what would happen. We are an independent, impartial, scientific institution with great responsibility. This independence means that I am liable for our work. But we have also been able to recruit really good scientists in the areas for which we are responsible. We need the best people – after all, nobody wants second-rate advice.